

REMARKS

Status of the Claims

Upon entry of the amendment above, claims 8-47 will be pending, claims 8, 13, 21, and 40 being independent. Claims 44-47 are newly added.

Summary of Office Action

Claims 8-15 and 17-43 are rejected under 35 USC § 103(a) as being unpatentable over CALLEGARI (U.S. Patent No. 5,108,125) in view of BEJEAN (U.S. Patent No. 5,333,890).

Claim 16 is rejected under 35 USC § 103(a) as being unpatentable over CALLEGARI in view of BEJEAN and further in view of KENNEY (U.S. Patent No. 6,257,620).

Response to the Office Action

A. Summary of the Amendment

Independent claim 8 is amended to further describe the upwardly facing recess of the upper surface of the ski as a *binding-receiving open* recess. The final two lines of claim 1 are amended to improve the form of the claim, i.e., for a cosmetic reason.

Independent claim 13 is also amended to specify that the recess is an *open* recess.

Similar to claim 8, independent claims 21 and 40 are amended to further describe the recess of the upper surface of the ski as a *binding-receiving upwardly open* recess.

Dependent claims 33, 34, 38, and 39 are amended to specify that the boot-engaging rib (such as rib 24 in the illustrated embodiments) is rearward of the entirety of the binding engagement with the boot. Paragraph 0012 of the specification is amended to add a sentence relating to the subject matter of claims 33, 34, 38, and 39, which is illustrated in the Fig. 1 of the drawing, for example.

New claims 44-47 depend from respective ones of the independent claims and describe the upwardly open recess as being structured and arranged to receive a *width* of the binding device, as can be seen in Fig. 4. Paragraph 0017 of the specification is amended to refer to this subject matter.

B. Summary of the Invention

The invention is directed to a ski and for ski "system" (i.e., ski with binding), particularly of the Nordic or cross-country type, in which the skier's boot is attached to the ski while allowing the skier's heel free to alternately be raised and lowered as the skier strides relative to the snow. The invention is more specifically related to an improvement in the ski and binding in terms of the modern-day equipment in which, rather than being in front of the boot, the attachment of the boot to the ski is situated beneath the boot, such as at the metatarsophalangeal bending zone of the foot. As explained in paragraph 0007 of Applicants' specification, in spite of the advantages provided by the location of the attachment of the boot in such aforementioned modern-day equipment, a particular disadvantage is the necessity to provide, as part of the binding, a plate between the boot and the top surface of the ski, thereby effectively raising the boot relative to the ski. The invention, therefore, provides a ski and a ski system in which the skier's boot is directly supported on the top surface of the ski despite it being attached to the ski *beneath* the boot. In this regard, see Fig. 4, e.g., in which the binding device 12 (shown schematically; Fig. 1 shows the binding device in greater detail) is situated within a recess 29 formed in the top of the ski, thereby exposing upper surfaces 28 to directly support the sole of the boot, as explained in paragraph 0016.

Exemplary independent claim 21 is copied below. For convenience, reference numerals are added for relating the claim terminology to the illustrated embodiments of the invention, although the scope of Applicants' invention is not to be limited by such references:

Claim 21. A cross-country ski system comprising:

 a cross-country ski (10) and a binding device (12) having a mechanism (16, 20) to engage a boot (14) to bind the boot to the ski;

 the cross-country ski having a longitudinally extending binding zone (29) spaced from front and rear ends of the ski, said binding zone comprising:

 a pair of transversely spaced apart longitudinally extending upper support surfaces (28) structured and arranged to support directly support surfaces of a sole of a boot at least in a metatarsophalangeal

bending zone of the boot when the boot is engaged with a mechanism of the binding device for engagement with the boot;

an upwardly open longitudinally extending binding-receiving recess (in zone 29 - see FIGS. 3, 4) positioned between said pair of upper support surfaces (28);

at least in the binding zone (29), the ski has an upper surface width greater than a width of the binding device (see FIGS. 2, 4, 6), thereby exposing the upper support surfaces (28) for direct contact with the sole of the boot on opposite lateral sides of the binding device (12);

the binding device (12) being structured and arranged to be fixed upon the ski (10) in the upwardly open recess (in zone 29; FIGS. 3, 4) of the binding zone, the binding device having an upwardly projecting rib (24) adapted to be positioned within a downwardly facing longitudinally groove in the sole of the boot (14);

the upwardly facing open recess of the upper surface of the ski extending downwardly at least partially to a depth below said upper support surface.

Exemplary dependent claim 22 adds the following requirements to the subject matter recited in parent claim 21:

Claim 22. A cross-country ski system according to claim 21, wherein:

the cross-country ski system includes no baseplate that would prevent a lower external surface of the boot from direct supporting engagement on the upper support surfaces of the ski.

C. Withdrawal of Rejections Based Upon CALLEGARI + BEJEAN '890

Applicants request withdrawal of the §103(a) rejections based upon CALLEGARI and BEJEAN '890, as well as the rejection based upon CALLEGARI, BEJEAN '890, and KENNEY, at least for the following reasons.

CALLEGARI discloses a ski binding (which he refers to as an *attachment* for a cross-country ski) that "is fitted to a cross country ski 34 above the upper support surface 35 of that ski 34" (see column 4, lines 53-54). By contrast, Applicants' claimed ski – shown in Figs. 3 and 4, for example – is configured to have the binding fitted *below* the upper support surfaces (such as below boot-engaging surfaces 28).

Further, CALLEGARI's binding/attachment includes a front body 27 and a rear body 29 (which are parts of an "oscillatory connector" 26) which fit within a downwardly open "seating" 19 in the front of the sole 18 of the boot, the front and rear bodies 27, 29 engaging anchorage pins 20, 21 of the front of the sole, the front and rear bodies being pivotable (during skiing) about the pivot 12 (which extends between, and is mounted to, transversely spaced-apart wings 36 (see Fig. 4)), the pivot 12 extending through the front body 27. The binding/attachment is fixed at its front to the ski with a screw 15, which extends through support 11, and at its rear by means of screws (see Fig. 4) extending through a transverse bracket 13, the latter forming a seating 38 for receiving a connection plate 16 of the support 11 (see column 6, lines 32-34), which could be "sunk" in the ski.

Page 3, lines 4-5, of the Office action explains that "Callegari does not disclose a recess in the upper surface of the ski."

Nor does BEJEAN '890 disclose a recess in an upper surface of a ski. Instead, the skis of BEJEAN '890 are comprised of an upper and lower element (such as upper and lower elements 4, 5 of Fig. 5).

BEJEAN '890 also fails to disclose a binding and fails to disclose a recess in a ski for receiving a binding. Like BEJEAN '179, relied upon in the prior Office action (of May 26, 2010) and then withdrawn, BEJEAN '890 only discloses various embodiments of a ski. No disclosure is provided relating to the mounting of a binding on a ski.

The disclosures of the aforementioned BEJEAN '179 (rejections having been withdrawn) and BEJEAN '890 are irrelevant to Applicants' invention in a similar way. Whereas the longitudinal groove 5c of the Fig. 4 embodiment of BEJEAN '179 does not receive a binding (as Applicants explained on page 15 of their reply to the Office action of May 26, 2010), the longitudinal groove 4a of the Fig. 5 embodiment of BEJEAN '890 likewise does not receive a binding. And in BEJEAN '890 the element 4 having the groove 4a *is not a ski*. Only when element 4 is joined to element 5 is there a ski. Thus, BEJEAN '890 fails to disclose an upwardly facing recess in the upper surface of the ski. Moreover, BEJEAN '890 fails to disclose an upwardly facing *open* recess, as specified in Applicants' independent claims 8, 13, and 21, or an upwardly facing open interruption in the upper surface of the ski, as specified in independent claim 40.

The invention of BEJEAN '890 relates to a new process for manufacturing a ski and the ski thus manufactured, in which, in the embodiments of Figs. 2-4, "the lower element 1 and the upper element 2 comprise the body of the ski" (column 3, lines 35-36). In the embodiment relied upon in the rejections, lower element 4 and upper element 5 comprise the ski (column 4, line 62, to column 5, line 9).

A particular purpose of the invention of BEJEAN '890 is "to very easily manufacture skis having different mechanical response characteristics by superimposing on a single type of lower shaped element, common to all of the types of skis that could be made according to BEJEAN 890's disclosure, upper shaped elements 2 made of different materials and/or having different transverse cross-sections" (column 3, lines 42-47). As explained in column 3, lines 48-56, a good connection between the upper and lower elements is to nest one of the two elements within a longitudinal groove of the other. In Fig. 1, the longitudinal groove is formed in the shape of a V by means of the two inclined walls 1f and 1g of lower shaped element 1 (see column 4, lines 12-15). In the embodiment of Fig. 5, relied upon in the rejections, the longitudinal groove 4a has a rectangular shape and is formed in the lower shaped element 4.

Whether V-shaped or rectangular-shaped, the longitudinal grooves of BEJEAN 890's skis serve the same purpose, such purpose having nothing to do with the mounting of a binding. BEJEAN '890 is silent regarding bindings. As explained in column 3, lines 48-52, to obtain a good connection between them, one of the elements is nested within the other.

Neither CALLEGARI nor BEJEAN '890 recognize the problem addressed by Applicants' claimed invention. That problem, as set forth in paragraph 0007 of the specification, is the increased height of the boot relative to the snow, and to the ski to which it is attached, i.e., whereby such height has a negative affect on the stability of the skier. As explained in Applicants' paragraph 0018, lowering the position of the *boot* vis-à-vis the ski and the snow, and lowering the position of the *binding* – and therefore the boot – with respect to the snow, *improves* stability.

Applicants respectfully submit that the advantage of BEJEAN '890's invention, referenced on page 3, lines 9-11, of the Office action – facilitating manufacturing and the selection of "desired performance characteristics" – is irrelevant to the mounting of CALLEGARI's binding to a ski. BEJEAN's disclosure is limited to creating skis with different performance characteristics by varying the type of top element that is mated with a bottom element, both elements extending the length of the ski, or substantially so (column 4, lines 38-41). The nesting of the top element into a longitudinal groove of the bottom element facilitates the manufacture *of the ski* (see column 3, lines 48-56) and facilitates the achievement of varied mechanical response characteristics *of the ski* (see column 3, lines 40-47; column 1, lines 28-33). No evidence is offered in the rejections that these advantages relate to the mounting *of a binding* (such as that of CALLEGARI or otherwise) on a ski – or on a bottom part of a ski. Applicants submit that a *prima facie* case of obviousness thus fails.

Neither BEJEAN '890 nor CALLEGARI recognizes the problem addressed by the claimed invention. In this regard, neither BEJEAN '890 nor CALLEGARI teaches the construction of a ski which provides for the lowering of the boot or the lowering of a binding mounted on the ski, which improves the skier's stability during use of the ski. Further, BEJEAN '890 says nothing, nor is there evidence that one skilled in art would have recognized anything from the BEJEAN disclosure, that relates to how a binding can be mounted on a ski. These are problems about which BEJEAN is not concerned.

In short, the Office action has not established a reason based on the evidence in the record for combining BEJEAN '890 with CALLEGARI to result in a ski according to the claimed invention, such as a ski having an upwardly facing recess (and, more particularly, a ski having an upwardly facing *open* recess, as amended herein) that extends downwardly to a depth below the upper boot-supporting surface.

Applicants have identified a problem. The claimed invention provides a solution to the problem in providing for a lowering of the boot and binding relative to the snow.

In contrast, CALLEGARI addresses himself to a problem relating to cross-country ski bindings, particularly the problem of guiding the skier's boot during the phase of skiing when the heel is separated from the ski. The height of the skier's boot and binding relative to the snow is not addressed. BEJEAN '890 addresses himself to a problem relating to the manufacture of skis having different mechanical characteristics by connecting any of a plurality of upper ski-length elements having different characteristics to a common bottom ski-length element.

The paragraph bridging pages 5 and 6 of the Office action offers the following in support of the rejections based upon CALLEGARI and BEJEAN '890:

[T]he teachings of Bejean are relied on only to show a method of assembling an upper ski element and a lower ski element by nesting said upper ski element in a recess formed in said lower ski element. If one were to apply this assembly method to the binding device (i.e. upper ski part) and ski (i.e. lower element), then one would arrive at applicant's invention.

Even if BEJEAN '890's deconstructed ski – merely the bottom half – were to have an upwardly facing recess at some point during manufacture, i.e., a pre-formed element, the rejections have not established through evidence that, at the time of the invention, it would have been desirable to have a ski with an upwardly facing open recess that extends downwardly to a depth below the upper boot-supporting surface. BEJEAN '890's upper ski element is not a ski binding. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) ("A patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.")

Applicants further take issue with the following sentence (on page 6, lines 1-3, of the Office action), immediately following the passage quoted above:

Furthermore, one of ordinary skill in the art would have recognized the desirability of forming the recess with only the size and length necessary to accommodate the binding device.

That one skilled in the art would have recognized that is nowhere evidenced in the record. The statement is merely conclusory.

Further, BEJEAN '890 describes how joining any of different upper elements – substantially the length of the ski – to a similarly sized bottom element can result in a ski having different performance characteristics. There is no evidence of record that teaches or suggests that having a recess *not the length of the ski*, but the length of front end of a skier's foot – to accommodate CALLEGARI's binding – would have any effect on the performance characteristics of the ski. Still further, of course, there is no evidence of record that would support the notion, set forth in the sentence above, that one skilled in the art would even have thought of mounting a binding onto one-half of a ski.

Thus, Applicants submit that the articulated reasoning for modifying CALLEGARI appears to be based on hindsight and is insufficient to support the obviousness rejection. (App. Br. 8). *See id.* at 421 ("A factfinder should be aware ... of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.").

Beyond the reasons advanced above, and further in support of Applicants' request that the rejections based upon the combination of CALLEGARI and BEJEAN '890 be withdrawn, Applicants kindly direct attention to the analogies between the reasoning advanced by the USPTO's Board of Patent Appeals and Interferences (affirming a rejection of the examiner), overturned by the court, in the recent case *In re Suitco Surface Inc.*, 603 F.3d 1255, 94 USPQ2d 1640 (Fed. Cir. 2010). In the decision of the court, authored by Chief Judge Rader, the rejection was found to be unreasonable – even under the USPTO's "broadest reasonable construction consistent with the specification" standard.

The patent claims in *Suitco* were directed to a "floor finishing material" for use on athletic courts, bowling lanes and other floor surfaces. The invention was essentially a

thin plastic sheet placed over a floor surface connected by an adhesive layer. A representative claim analyzed by the Federal Circuit claimed the flooring as having a flat top surface and an improved "material for finishing the top surface of the floor" that comprised at least one elongated sheet including a uniform flexible film of clear plastic material.

In finding the Board's interpretation, i.e., construction, of the claim limitation directed to a "material for finishing the top surface of the floor" to be unreasonable, the court explained:

In its rejection, the Board construed the term "material for finishing the top surface of the floor" to mean "requiring a material that is structurally suitable for placement on the top surface of a floor." Under that construction, according to the Board, the "material for finishing the top surface of the floor" could be any layer above the floor regardless of whether it was the top or final layer.

Id. 603 F.3d, at 1259; 94 USPQ2d, at 1643.

However, the court rejected that construction as follows:

A material cannot be finishing any surface unless it is the final layer on that surface. Otherwise, the material would not be "finishing" the surface in any meaningful sense of the word.

The PTO's proffered construction ignores this reality by allowing the finishing material to fall anywhere above the surface being finished regardless of whether it actually "finishes" the surface. Indeed, according to the PTO, the finishing surface need only be "structurally suitable for placement on the top surface of the floor" – i.e., several layers can be placed on top of the "finishing" layer.

* * *

The PTO's construction here, though certainly broad, is unreasonably broad.

Id.

In the instant case, even if the longitudinal groove 4a of BEJEAN '890 could be characterized as a recess in a ski (rather than, as Applicants submit, is merely a groove in a pre-manufactured part of a ski, i.e., in a *lower* part), it is not an upwardly facing open recess in an *upper surface* of a ski, as Applicants claim. To characterize it as such, Applicants submit, would be unreasonable.

CONCLUSION

The grounds of rejection advanced in the Office action have been addressed and are believed to be overcome. Reconsideration and allowance are respectfully requested in view of the amendment and remarks above.

Payment is being paid herewith for the fees for extra claims. No additional fee is believed to be due at this time. However, the Commissioner is authorized to charge any fee required for acceptance of this reply as timely and/or complete to Deposit Account No. 19-0089.

Any comments or questions concerning this application can be directed to the undersigned at the telephone number, fax number, or e-mail address given below.

Respectfully submitted,
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